



Docket No.: 18396/2112  
Serial No.: 10/010,873

Revised sequence listing 2.txt  
SEQUENCE LISTING

<110> Medical Research Company  
Sattile, David  
Culetto, Emmanuel  
Baylis, Howard

<120> Recombinant Nematode Nicotinic Receptor and Uses

<130> 18396/2112

<140> US 10/010,873

<141> 2001-12-07

<150> PCT/GB00/02270

<151> 2000-06-09

<150> GB 9913248.2

<151> 1999-06-09

<160> 4

<170> PatentIn Ver. 3.3

<210> 1

<211> 502

<212> PRT

<213> Caenorhabditis elegans

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Leu Ser Pro Pro Thr His Ala Asn Arg Asp Ala Asn Arg Leu Phe Glu  
20 25 30  
Asp Leu Ile Ala Asp Tyr Asn Lys Leu Val Arg Pro Val Ser Glu Asn  
35 40 45  
Gly Glu Thr Leu Val Val Thr Phe Lys Leu Lys Leu Ser Gln Leu Leu  
50 55 60  
Asp Val His Glu Lys Asn Gln Ile Met Thr Thr Asn Val Trp Leu Gln  
65 70 75 80  
His Ser Trp Met Asp Tyr Lys Leu Arg Trp Asp Pro Val Glu Tyr Gly  
85 90 95  
Gly Val Glu Val Leu Tyr Val Pro Ser Asp Thr Ile Trp Leu Pro Asp  
100 105 110  
Val Val Leu Tyr Asn Asn Ala Asp Gly Asn Tyr Gln Val Thr Ile Met  
115 120 125  
Thr Lys Ala Lys Leu Thr Tyr Asn Gly Thr Val Glu Trp Ala Pro Pro  
130 135 140  
Ala Ile Tyr Lys Ser Met Cys Gln Ile Asp Val Glu Phe Phe Pro Phe  
145 150 155 160  
Asp Arg Gln Gln Cys Glu Met Lys Phe Gly Ser Trp Thr Tyr Gly Gly  
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REVISED SEQUENCE LISTING TEXT

165                      170                      175

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<220>
<221> MISC_FEATURE
<222> (86)..(109); (206)..(225); (322)..(345); (430)..(452)
<223> xaa at these positions can be any amino acid.

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Met 1	Arg	Ser	Phe	Trp 5	Leu	Phe	Leu	Leu	Leu 10	Leu	Leu	Phe	Cys	Ile 15	Ser	
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Asp	Leu	Met 35	Val	Asn	Tyr	Asn	Arg 40	His	Arg	Arg	Pro	Ser 45	Thr	Ser	Pro	
Asn	Lys 50	Pro	Leu	Thr	Ile	Lys 55	Leu	Lys	Leu	Lys	Leu 60	Arg	Leu	Ser	Gln	
Ile 65	Ile	Asp	Val	His	Glu 70	Ile	Asp	Gln	Ile	Met 75	Thr	Cys	Ser	Val	Trp 80	
Leu	Lys	Gln	Thr	Trp 85	Xaa	Xaa	Xaa	Xaa	Xaa 90	Xaa	Xaa	Xaa	Xaa	Xaa 95	Xaa	
Xaa	Xaa	Xaa	Xaa 100	Xaa	Xaa	Xaa	Xaa	Xaa 105	Xaa	Xaa	Xaa	Xaa	Ile 110	Trp	Val	
Pro	Asp	Ile 115	Val	Leu	Tyr	Asn	Asn 120	Ala	Asp	Ser	Asn	Tyr 125	Asn	Ile	Thr	
Ile	Ser 130	Thr	Lys	Ala	Thr	Leu 135	His	Tyr	Thr	Gly	Glu 140	Val	Thr	Trp	Glu	
Pro 145	Pro	Ala	Ile	Phe	Lys 150	Ser	Met	Cys	Gln	Ile 155	Asp	Val	Arg	Trp	Phe 160	
Pro	Phe	Asp	Glu	Gln 165	Gln	Cys	His	Leu	Lys 170	Phe	Gly	Ser	Trp	Thr 175	Phe	
Ser	Glu	Asn	Leu 180	Leu	Ser	Val	Glu	Leu 185	Asn	Glu	Pro	Ser	Leu 190	Arg	Tyr	
Glu	Glu	Glu 195	Ile	Asp	Glu	Lys	Gly 200	Ile	Ile	Asp	Asn	Val 205	Xaa	Xaa	Xaa	
Xaa	Xaa 210	Xaa	Xaa	Xaa	Xaa	Xaa 215	Xaa	Xaa	Xaa	Xaa	Xaa 220	Xaa	Xaa	Xaa	Xaa	
Xaa 225	Met	Ser	Arg	Val	Ala 230	Lys	Arg	Arg	Ala	Lys 235	Asn	Tyr	Pro	Ser	Cys 240	
Cys	Pro	Gln	Ser	Ala 245	Tyr	Ile	Asp	Val	Thr 250	Tyr	Tyr	Leu	Gln	Leu 255	Arg	
Arg	Lys	Pro	Leu	Phe	Tyr	Thr	Val	Asn	Leu	Val	Phe	Pro	Cys	Val	Gly	

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260  
Ile Ser Phe Leu Thr Ile Leu Val Phe Tyr Leu Pro Ser Asp Ser Gly  
275 280 285  
Glu Lys Val Thr Leu Cys Ile Ser Ile Leu Val Ala Leu Thr Ile Phe  
290 295 300  
Phe Leu Leu Leu Thr Glu Ile Ile Pro Ala Thr Ser Ile Thr Leu Pro  
305 310 315 320  
Leu Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
325 330 335  
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Leu His Phe Arg Thr Pro Thr  
340 345 350  
Thr His Leu Met Pro Asn Trp Val Lys Lys Val Phe Leu Lys Trp Leu  
355 360 365  
Pro Lys Leu Leu Phe Met Arg Arg Pro Ile Asp Asp Tyr Glu Glu Lys  
370 375 380  
Phe Asp Asp Lys Lys Lys Pro Lys Asp Gly Lys Ile Ala Leu Ser Val  
385 390 395 400  
His Ala His Arg Val Ser Asn Val Gly Asn Asn Ile Arg Asn Ala Thr  
405 410 415  
Ile Asp Asp Thr Ile Gln Lys Met Tyr Tyr Ser Pro Pro Xaa Xaa Xaa  
420 425 430  
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
435 440 445  
Xaa Xaa Xaa Xaa Ile Asp Glu Asp Trp Lys Tyr Val Ala Met Val Leu  
450 455 460  
Asp Arg Leu Phe Leu Leu Ile Phe Ser Ile Ala Cys Phe Val Gly Thr  
465 470 475 480  
Val Ile Ile Leu Leu Arg Ala Pro Thr Leu Tyr Asp Thr Arg Gln Pro  
485 490 495  
Ile Asp Leu Gln Tyr Arg Pro Ala Asn Leu Ser Ala Asn Pro Ile Ser  
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Phe

<210> 3  
<211> 507  
<212> PRT  
<213> Caenorhabditis elegans

<220>  
<221> MISC\_FEATURE  
<222> (96)..(119); (196).. (214); (301)..(324); (417)..(439)  
<223> xaa at these positions can be any amino acid.

<400> 3  
Met Met Leu Gly Gly Gly Gly Gly Cys Gly Ala Gly Gly Thr Trp Leu  
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Gly	Phe	Leu	Val	Phe	Leu	Ala	Val	Ser	Leu	Arg	Asn	His	Ser	Thr	Cys
			20					25					30		
Glu	Asp	Ile	Asp	Ala	Glu	Asp	Arg	Leu	Met	Val	Asp	Leu	Phe	Arg	Gly
		35					40					45			
Tyr	Asn	Ser	Leu	Val	Gln	Pro	Val	Arg	Asn	Arg	Ser	Glu	Leu	Pro	Met
	50					55					60				
Ile	Val	Lys	Ile	Gly	Met	Gln	Leu	Val	Leu	Leu	Ile	Asn	Val	Asp	Glu
65					70					75					80
Lys	Glu	Gln	Val	Met	His	Thr	Asn	Val	Trp	Leu	Thr	Met	Lys	Trp	Xaa
				85					90					95	
Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa
			100					105					110		
Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Val	Trp	Leu	Pro	Asp	Ile	Val	Leu	Phe
		115					120					125			
Asn	Asn	Ala	Asp	Gly	Asn	Tyr	Glu	Val	Ser	Phe	Met	Cys	Asn	Val	Leu
	130					135					140				
Ile	Leu	Ser	Thr	Gly	Thr	Val	Leu	Trp	Val	Pro	Pro	Ala	Ile	Tyr	Lys
145					150					155					160
Ser	Ser	Cys	Ile	Ile	Asp	Val	Glu	Phe	Phe	Pro	Phe	Asp	Asp	Gln	Leu
				165					170					175	
Cys	Ser	Leu	Thr	Phe	Gly	Ser	Trp	Thr	Tyr	Asn	Arg	Asp	Glu	Ile	Lys
			180					185					190		
Leu	Asp	Phe	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa
		195					200					205			
Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Met	Asp	Gly	Pro	Ala	Val	Leu	Thr	Ser	Asp
	210					215					220				
Arg	Ser	Arg	Ile	Glu	Phe	Gln	Ile	Arg	Ile	Arg	Arg	Lys	Thr	Leu	Phe
225					230					235					240
Tyr	Thr	Val	Val	Leu	Ile	Leu	Pro	Thr	Val	Leu	Met	Ala	Phe	Leu	Asn
				245					250					255	
Val	Thr	Val	Phe	Tyr	Leu	Pro	Thr	Ala	Ser	Gly	Glu	Lys	Met	Gly	Leu
			260					265					270		
Thr	Met	Asn	Val	Leu	Leu	Ser	Ile	Val	Val	Phe	Leu	Leu	Leu	Val	Ser
		275					280					285			
Lys	Ile	Leu	Pro	Pro	Thr	Ser	Ser	Ser	Ile	Pro	Leu	Xaa	Xaa	Xaa	Xaa
	290					295					300				
Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa
305					310					315					320
Xaa	Xaa	Xaa	Xaa	Ile	Tyr	Phe	Arg	Ser	Pro	Ile	Thr	His	Arg	Leu	Pro
				325					330					335	
Pro	Trp	Val	Arg	Lys	Val	Phe	Leu	Asp	Ile	Leu	Pro	Leu	Leu	Met	Cys
			340					345					350		

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Met Gln Arg Pro His Arg Lys Asn Val Ile Gln Arg Ser His Arg Arg  
355 360 365  
Leu Leu Glu Thr Gly Pro Ser Val Glu Glu Asn Pro Met Arg Ser Gly  
370 375 380  
Glu His His Pro Leu Cys Arg His Thr His Asn Gln Asp Ser Cys Arg  
385 390 395 400  
Arg Val Arg Ile Gln Ser Asp Glu Leu Asp Asp Glu Leu Ser Pro Glu  
405 410 415  
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
420 425 430  
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Phe Arg Asp Asp Trp Lys Phe Ile Ala  
435 440 445  
Ser Val Val Asp Arg Phe Leu Leu Tyr Gly Phe Phe Gly Ala Thr Val  
450 455 460  
Gly Gly Thr Ile Gly Ile Ile Phe Thr Ala Pro Ser Val Phe Glu Thr  
465 470 475 480  
Phe Asp Glu Asn Ala Thr Leu Val Lys Leu Lys Gln Leu Tyr Asp Met  
485 490 495  
Gly Leu Ala Asn Asp Thr Val Leu Gly Ile Phe  
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<210> 4

<211> 493

<212> PRT

<213> Caenorhabditis elegans

<220>

<221> MISC\_FEATURE

<222> (88)..(111); (188)..(206); (292)..(316); (409)..(431)

<223> Xaa at these positions can be any amino acid.

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Met Arg Thr Asn Arg Leu Ser Trp Ile Leu Val Leu Ser Val Val Ile  
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Phe Leu Val Ile Ile Asn Thr Ile Asn Ala Ser Asp Asp Glu Glu Arg  
20 25 30  
Leu Met Val Asp Val Phe Arg Gly Tyr Asn Ser Leu Ile Gln Pro Val  
35 40 45  
Arg Asn Ser Ser Glu Leu Pro Leu Ile Val Lys Met Ala Leu Gln Leu  
50 55 60  
Val Leu Leu Ile Asn Val Asp Glu Lys Asp Gln Val Met His Thr Asn  
65 70 75 80  
Val Trp Leu Thr Leu Gln Trp Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
85 90 95  
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Val  
100 105 110

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Trp Leu Pro Asp Ile Val Leu Phe Asn Asn Ala Asp Gly Asn Tyr Glu  
115 120 125

Val Ser Phe Met Cys Asn Val Val Ile Asn His Lys Gly Asp Met Leu  
130 135 140

Trp Val Pro Pro Ala Ile Tyr Lys Ser Ser Cys Ile Ile Asp Val Glu  
145 150 155 160

Phe Phe Pro Phe Asp Glu Gln Val Cys Thr Leu Val Phe Gly Ser Trp  
165 170 175

Thr Tyr Asn Glu Asn Glu Ile Lys Leu Glu Phe Xaa Xaa Xaa Xaa Xaa  
180 185 190

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Ile Asp  
195 200 205

Val Pro Ala Ser Leu Val Asn Lys Arg Ser Arg Ile Glu Phe Gln Val  
210 215 220

Arg Ile Arg Arg Lys Thr Leu Phe Tyr Thr Val Val Leu Ile Ile Pro  
225 230 235 240

Thr Val Leu Met Ala Phe Leu Ser Met Ala Val Phe Phe Leu Pro Thr  
245 250 255

Asp Ser Gly Glu Lys Ile Thr Leu Thr Ile Ser Val Leu Leu Ser Ile  
260 265 270

Val Val Phe Leu Leu Leu Val Ser Lys Ile Leu Pro Pro Thr Ser Ser  
275 280 285

Thr Ile Pro Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
290 295 300

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Val Tyr Phe Arg  
305 310 315 320

Gly Pro Arg Thr His Arg Met Pro Gln Trp Val Arg Val Val Phe Leu  
325 330 335

Gln Phe Leu Pro Lys Leu Val Cys Met Lys Arg Pro Lys Ser Ala Ser  
340 345 350

Glu Arg Ser Ala Val Arg Ser Gly Met Ala Gln Leu Pro Gly Val Gly  
355 360 365

Gln Phe Thr Leu Ser Pro Ser Ala His His Pro Leu Cys Pro Ser Ala  
370 375 380

Asp Asp Arg Thr Thr Thr Ile Arg Asn Thr Ala Ser Asn Glu Thr Ser  
385 390 395 400

Ala Tyr Tyr Pro Leu Ser Thr Asp Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
405 410 415

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Phe  
420 425 430

Arg Asp Asp Trp Lys Tyr Val Ala Met Ile Ile Asp Arg Leu Leu Leu  
435 440 445

Revised sequence listing 2.txt

Tyr Val Phe Phe Gly Ile Thr Val Gly Gly Thr Cys Gly Ile Leu Phe  
450 455 460

Ser Ala Pro His Val Phe Gln Arg Ile Asp Gln Gln Glu Met Leu Asp  
465 470 475 480

Arg Leu Lys Glu Lys Tyr Asp Thr Ala Ser Asn Ile Pro  
485 490